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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/408,761	09/29/1999	RODERIC M. K. DALE	054800-5015	4430

7590 12/24/2002

Morgan, Lewis & Bockius LLP  
1800 M street, NW  
Washington, DC 20036

EXAMINER

ALLEN, MARIANNE P

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 12/24/2002

25

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/408,761

Applicant(s)

DALE, RODERIC M. K.

Examiner

Marianne P. Allen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 34-40 and 42-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-40 and 42-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

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### DETAILED ACTION

Claims 34-40 and 42-46 are under consideration by the examiner.

Applicant's arguments filed 9/18/02 have been fully considered but they are not persuasive.

#### *Specification*

The amendments to the specification are noted.

#### *Claim Rejections - 35 USC § 112*

Claims 34-40 and 42-46 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

This rejection is maintained for reasons of record in view of the comments below.

Claim 34 part (1) recites a length of "from about 20 to about 300 nucleotides." Applicant points to the disclosure on page 6 for the range "from about 2 to about 300." Applicant argues that the claimed range falls within this and as such is adequately described. This portion of the rejection will be withdrawn in view of the disclosure in the specification of 20mers being exemplified on page 38. This serves as basis for changing the endpoint of the range from 2 to 20 as set forth in *Wertheim*; however, applicant is advised that their argument is not persuasive for claims directed to any subrange within the range "from about 2 to about 300."

Claim 34 part (2) recites a group of internucleotide linkages. Applicant points to page 16, lines 13-25, in support. However, this portion of the disclosure states that the

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oligonucleotides and/or polynucleotides are fully derivitized. This is not a limitation of this claim.

Claim 34 part (4) recites a particular substitution at a 2' position of the ribose group, said substitution distinguishing said oligonucleotide from naturally occurring RNA or DNA.

Applicant points to page 2, lines 24-26; page 8, lines 6-8, and Figures 1-4. However, the modification of the 2' position is not disclosed in the context of distinguishing said oligonucleotide from naturally occurring RNA or DNA. On page 2 it is modification at this position to increase binding affinity. On page 8 and Figures 1-4 it is particular modifications at this position with respect to resistance to degradation. These are not the limitations of the claim.

Claim 34 recites that the associated oligonucleotides of one area exhibit substantially the same  $T_m$  when bound to a target nucleic acid as oligonucleotides of another area of the array.

Applicant argues that the examiner has not established a *prima facie* case as to why the specification lacks written description. Applicant is reminded that this is not an originally filed claim and that with respect to newly added or amended claims, applicant should show support in the original disclosure for the new or amended claims. See MPEP §714.02 and § 2163.06.

Applicant has not explained basis for the new limitations and the examiner has previously set forth why no basis was seen.

The amendments of claims 35 and 36 to recite an oligonucleotide having the same length and sequence (an unmodified counterpart) not an oligonucleotide of just the same length obviates this portion of the prior rejection. However, the claims remain rejected for new matter based upon their dependency upon claim 34.

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Claim 34 part (5) discloses a pH stability. This appears to have some basis in original claims 10 and 12 for some arrays but not with respect to the characteristics of parts (1), (2), and (4) as presently claimed. Likewise, the limitation of claim 40 appears to have some basis in original claim 13 with respect to the arrays claimed in original claim 10 but not with respect to the characteristics recited in claim 34. Likewise, the limitation of claim 42 appears to have some basis in original claim 5 with respect to the arrays claimed in original claim 1 but not with respect to the characteristics recited in claim 34. Likewise, the limitation of claim 46 appears to have some basis in original claim 9 with respect to the arrays claimed in original claim 1 but not with respect to the characteristics recited in claim 34. Applicant's arguments are not persuasive. The originally filed claims provide support for some combinations of characteristics for an array based upon their dependencies (as set forth above); however, they do not disclose the particular combination of characteristics now claimed. The specification does not appear to contemplate the subgenus of arrays having the recited characteristics.

Applicant is again requested to point out by page and line number in the specification the basis for each claimed characteristic of the array as well as basis for the **subgenus of arrays having this combination of characteristics**.

#### ***Double Patenting***

It is noted that the claims of U.S. Patent Nos. 6,087,112 and 6,440,723 to Roderic M. K. Dale (same inventive entity as the instant application) are directed to arrays with very similar characteristics. Applicant is advised that a double patenting rejection may be made if the claims of the instant application are amended in view of the new matter rejection above.

It is further noted that co-pending application 09/524,092 has a common inventor with the instant application and is directed to related subject matter. This application has been allowed but has not yet issued.

***Conclusion***

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 703-308-0666. The examiner can normally be reached on Monday-Friday, 7:00 am - 1:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 703-308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

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Marianne P. Allen  
Primary Examiner  
Art Unit 1631

mpa

December 23, 2002